

Overview

The Mio Modero DMS device family provides a wide range of control capabilities in the form of user specified buttons that are functional yet reconfigurable.

Mio Modero DMS keypads are equipped with an LCD menu display with 8 pushbuttons for navigation and menu selection.

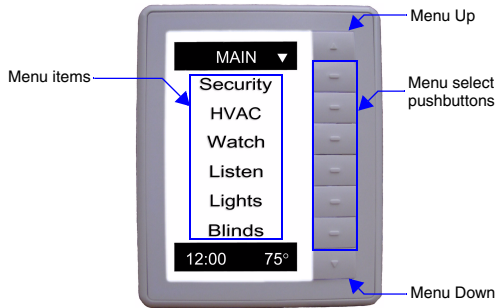


FIG. 1 Mio Modero DMS Device Family

Specifications

Mio Modero DMS (FG2408-01XX) Specifications	
Power 12 VDC / PoE:	
Maximum power consumption (PoE):	• 5.5 Watts
Maximum startup (rush) current (PoE):	• 150 mA @ 50 VDC
Maximum continuous current (PoE):	• 100 mA @ 50 VDC
Maximum power consumption (DC):	• 5.0 Watts
Maximum startup (rush) current (DC):	• 525 mA @ 13.5 VDC
Maximum continuous current (DC):	• 350 mA @ 13.5 VDC
Front Panel Components:	• LCD display • 8 pushbuttons
Rear Panel Connectors:	• Ethernet Port (PoE) • 2-pin 3.5 mm mini-Phoenix (female) connector
Dimensions (HWD):	• 4.50 (114.3 mm) x 3.50 (91.4 mm) x 2.88 (73 mm)
Supported Fonts:	• Only True Type Fonts
Weight (range):	• Device - .45 lbs (.20 kg) • Back box - .20 lbs (.09 kg)
Operating Environment:	• Operating Temperature: 0° to 40° C (32° to 104° F) • Storage Temperature: -10° to 60° C (14° to 140° F)
Mounting:	The Mio Modero DMS is installed in one of two ways: • 4 screws for hard surface mounting • 2 expansion clips for pressure mounting
Available Color Schemes:	Black (BL), White (WH), Beige (BG), Almond (AL), Brown (BR), Gray (GR), Ivory (IV), Light Almond (LA), Taupe (TP), Gold (GL), Silver (SL)
Included Accessories:	• 2-pin 3.5 mm mini-Phoenix connector (41-5025) • Mounting kit (KA2250-01)

Dynamic Menu System

Using the KeypadBuilder application available for download from www.amx.com, the Mio Modero DMS is programmed with a Dynamic Menu System (DMS) that is navigated via the 8 pushbuttons and LCD display area. See the *KeypadBuilder Instruction Manual* for more information on programming Mio Modero DMS devices.

Installation

Note: To avoid any damage to the electronic component, installation must be performed in an ESD safe environment.

The installation section addresses the mounting and wiring of the Mio Modero DMS. After you have completed the installation you must consult *Necessary Device Setup*.

Rear Components

The rear components of the Mio Modero DMS (FIG. 2) are as follows:

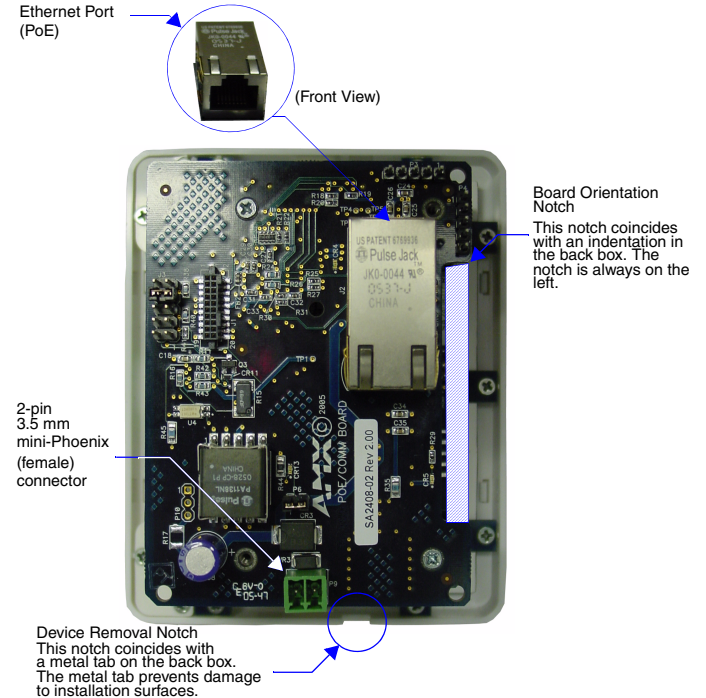


FIG. 2 Mio Modero DMS Rear Components

Connections and Wiring

The Mio Modero DMS device is powered either via 12VDC or Power over Ethernet (PoE). If both the 12 VDC and PoE power sources are connected, by default the device draws power from the 12 VDC. If the 12 VDC source is disconnected, the PoE will automatically supplies power after a device reboot.

Note: Do not connect power to the Mio Modero DMS until the wiring is complete.

Preparing captive wires for the 2-pin 3.5 mm mini-Phoenix connector

You will need a wire stripper, and flat-blade screwdriver to prepare and connect the captive wires.

- Strip 0.25 inch (6.35 mm) of wire insulation off all wires.
- Insert each wire into the appropriate opening on the connector according to the wiring diagrams and connector types described in this section.
- Turn the screws clockwise to secure the wires in the connector.

Note: Do not over-torque the screws; doing so can bend the seating pins and damage the connector.

Using the PSN NetLinX connector for power

The PWR and GND wires from the 12 VDC power supply must be connected to the corresponding location on the 2-pin 3.5 mm mini-Phoenix connector (See the *KeypadBuilder Instruction Manual* for an illustration).

- Insert the PWR and GND wires on the terminal end of a PSN 2-pin 3.5 mm mini-Phoenix cable. Match the wiring locations of the +/- on both the power supply and the terminal connector.
- Tighten the clamp to secure the two wires.
- Verify the connection of the 2-pin 3.5 mm mini-Phoenix to the power supply.

Using the Ethernet port for power (PoE)

Connect your CAT5/CAT6 Ethernet cable to the port shown in FIG. 2. (See the *Mio Modero DMS & Mio Modero DMS Pinnacle* instruction manual for an illustration and cable pinouts).

Mounting Procedures

FIG. 3 shows the mounting dimensions for the Mio Modero DMS. Reference these measurements when planning and installing the device. Consult the *Mio Modero DMS & Mio Modero DMS Pinnacle* instruction manual for other installation methods.

Flat Surface Installation

It is recommended that you cutout the surface slightly smaller than what is outlined in the installation drawings so that you can make any necessary cutout adjustments.

Before you begin, if you are using the 2-pin power connector, verify that the terminal end of the power cable is not connected to a power source

1. If assembled, remove the Mio Modero DMS from the backbox. Place a flathead screwdriver between the tab of the backbox and the notch of the Mio Modero DMS (see FIG. 2) and pry the two apart.
2. Cut out the surface for the Mio Modero DMS backbox using the dimensions shown in FIG. 3. A template is included to help you determine dimensions.

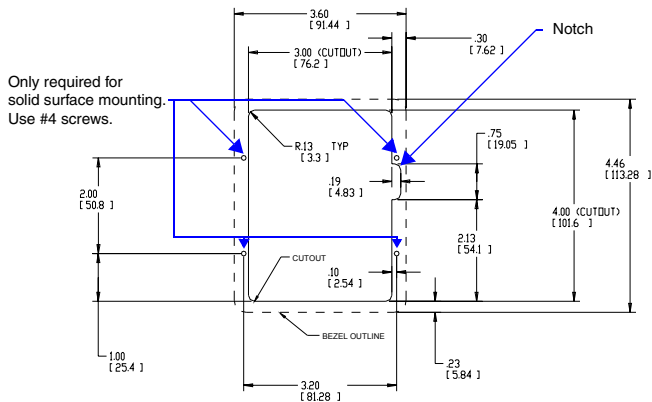


FIG. 3 Mio DMS Installation Using Either Expansion Clips or #4-40 Screws

3. Thread the CAT5/CAT6 and, if necessary, the power cables through one of the provided breakaway access points on the backbox. Leave enough slack in the wiring to accommodate any re-positioning of the unit.
4. Insert the backbox into the cutout until the rim of the backbox is flush against the wall.
5. Insert and secure four #4-40 mounting screws (not included) into their corresponding holes located along the sides of the backbox until it is flush against the wall. Or use the expansion clips at this time.
6. Connect the 2-pin power connector and/or CAT5/CAT6 cables in the back of the Mio DMS. See FIG. 2 for port locations.
7. Insert and fasten the Mio DMS into the backbox, start at the top of the device and tilt in toward the bottom.

Device Setup

The Mio DMS is equipped with firmware pages that allow you to set and configure various features of the device. Some menu items are compulsory, *Necessary Device Setup*, while other items are optional, *Optional Device Setup* section on page 28 of the instruction manual.

To navigate the pages in the Mio DMS, press *More...* to view more options within the selected menu. Press *Return* to go back a page and accept changes made.

Note: Confirm your NetLinx master has the latest version of Nexus compliant firmware. The firmware must be UDP and NDP settings compliant (v.323 or higher).

Accessing The Setup Page

If you have not loaded any pages on your Mio DMS device, it will launch the Setup page by default. Otherwise, press and hold down the Up and Down buttons for 3 seconds.

Necessary Device Setup

The following sections must be set on your Mio DMS.

IP Settings

The configuration of the Mio DMS requires you set the communication protocol. Your options are either Static or DHCP. Consult the *Mio DMS & Mio DMS Pinnacle* instruction manual for setting Static. From the Setup page, follow these steps:

1. Push the button that corresponds to Protected Setup. If you do not have a password established, the device will not prompt you for one. The default password is **1988**.
 2. Select the button for *IP Settings*.
 3. Select the button for *DHCP*.
 4. In the DHCP page, select the button for *DHCP* to toggle the protocol between DHCP and Static.
 5. Select the button for *Return* to accept that change.
- Consult the *Mio DMS & Mio DMS Pinnacle* instruction manual for setting a Host Name.

Mio DMS Menu Navigation

Follow these tips to set your device information:

- The **Up** and **Down** buttons scroll through numerals, upper case and lower case letters.
- **Accept Char** enters the current value and moves the cursor to the right.
- **Backspace** moves the cursor to the left.
- **Clear** removes everything listed.
- **Abort** exits the edit page without keeping changes.
- **Done** accepts changes and returns to the previous page.

Master Connection

1. Push the button that corresponds to *Protected Setup*. If you do not have a password established, the device will not prompt you for one.
2. Select the button for *Master Connection*.
3. Select the button for *Connection Mode*.
4. Select the button next to the listed mode to toggle through the available connection modes:

Connection Modes		
Mode	Description	Procedures
Auto	The device connects to the first master that responds. This setting requires you set the System Number, this setting is available in the <i>Master Connection</i> menu.	Setting the System Number: <ol style="list-style-type: none"> 1. Within the <i>Master Connection</i> menu, select the button for <i>System Number</i>. 2. To change the System Number from what is listed, press the button next to the System Number to enter the edit page. See <i>Mio DMS Menu Navigation</i> for help. <ol style="list-style-type: none"> 3. After you have set your System Number and pressed Done, press Return to finalize your changes and go back to the <i>Master Connection</i> page.
URL	The device connects to the specific IP of a master via a TCP connection. This setting requires you set the Master's IP.	Setting the Master IP: <ol style="list-style-type: none"> 1. Select the button next to <i>More...</i> 2. Select the button next to <i>Master IP</i>. 3. To change the Master IP from what is listed, press the button next to the Master IP number to enter the edit page. See <i>Mio DMS Menu Navigation</i> for help. <ol style="list-style-type: none"> 4. After you have set your Master IP and pressed Done, press Return to finalize your changes and go back to the <i>Master Connection</i> page.
Listen	The device "listens" for the master to initiate contact. This setting requires you provide the master with the device's IP.	Confirm device IP is on the Master URL list. You can set the Host Name on the device and use it to locate the device on the master. Host Name is particularly useful in the DHCP scenario where the IP address can change.
NDP (UDP)	The device is available via Nexus Discovery Protocol.	Use the master web interface, NetLinx Studio or commands to bind the DMS device to the master.
URL (UDP)	The device connects to the specific IP of a master via UDP.	Setting the Master IP: <ol style="list-style-type: none"> 1. Select the button next to <i>More...</i> 2. Select the button next to <i>Master IP</i>. 3. To change the Master IP from what is listed, press the button next to the Master IP number to enter the edit page. See <i>Mio DMS Menu Navigation</i> for help. <ol style="list-style-type: none"> 4. After you have set your Master IP and pressed Done, press Return to finalize your changes and go back to the <i>Master Connection</i> page.

5. Press the button for *More...* to view the second page of the *Master Connection* menu.
 6. Press the button for *Master Port*. The default setting for the port is **1319**. Press the button next to the master port number to access the edit page and change this value.
See *Mio DMS Menu Navigation* for help.
 7. After you have set your Master Port and pressed **Done**, press **Return** to finalize your changes and go back to the *Master Connection* page.
- If you have enabled password security on your master you need to set the username and password within the device.
8. Press the button for *Username*. If no username has been set, the field is blank. Press the button that correlates to the blank field just below *Username*.
See *Mio DMS Menu Navigation* for help.
 9. After you have set your Username and pressed **Done**, press **Return** to finalize your changes and go back to the *Master Connection* page.
 10. Press the button for *More...*
 11. Press the button for *Password*. If no password has been set, the field is blank. Press the button that correlates to the blank field just below *Password*.
See *Mio DMS Menu Navigation* for help.
 12. After you have set your Password and pressed **Done**, press **Return** to finalize your changes and go back to the *Master Connection* page.
 13. Reboot device to confirm changes.